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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,157	10/13/2005	John Doyle	SC0979EK	8976
23125 7590 12/12/2008 FREESCALE SEMICONDUCTOR, INC. LAW DEPARTMENT 7700 WEST PARKER LANE MD:TX32/PL02 AUSTIN, TX 78729			EXAMINER MAMO, ELIAS	
			ART UNIT 2184	PAPER NUMBER
			NOTIFICATION DATE 12/12/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

10/507,157

Applicant(s)

DOYLE ET AL.

Examiner

ELIAS MAMO

Art Unit

2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-10 and 12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5, 7-10 and 12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said identifier look-up table element" in line 11. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the

differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson et al. (US 6,963,586), herein after referred to as Henriksson et al. '586, in view of Williams et al. (US 6,515,993), herein after referred to as Williams et al. '993 and Spaur et al. (US 5,732,074), herein after referred to as Spaur et al. '074.

Referring to **claim 1**, Henriksson et al. '586 teaches, as claimed, an information controller for a communication system having at least one communication bus (i.e.-protocol processor for processing first head information of a reception packet, col. 4, lines 9-11) having an information unit with an identifier portion and a data portion corresponding to said identifier portion (i.e.-reception packet with header information and payload data, col. 3, lines 17-18), said information controller comprising an identifier look-up element (i.e.-field extraction unit 22 and compare unit 24, col. 9, lines 21-24) for sending a predetermined program selector to a

signal handler upon determination that the identifier portion of a received information unit corresponds to a predetermined identifier associated with the predetermined program selector (Note: based on the comparing unit result an instruction is selected from the first look-up table, col. 4, lines 36-44); and said identifier look-up element further comprises a look-up table (i.e.-look-up table 54, see fig. 5) for storing a list of identifiers (Note: the look-up table stores addresses as a key to provide the corresponding instruction, col. 7, lines 32-33), said identifier look-up table element searching the look-up table in order to find said predetermined identifier and said predetermined program selector corresponding to said identifier portion (Note: the comparing unit searches and matches an address to a value in a look-up table and provides instructions for further processing, col. 3, lines 50-57).

However, Henriksson et al. '586 does not explicitly teach where the information controller being an automotive information controller for an automotive communication system; and where the program selector defines an operation to be performed on the data portion by the signal handler.

On the other hand, Williams et al. '993 discloses a method of outputting or selecting an operation code based upon header information where the operation code indicates methods of

modifying the data frame (col. 3, lines 11-19). Further more, Spaur et al. '074 discloses a controller area network (CAN) which operatively connected to plurality of devices that transmit, receive or both transmit and receive desired data (col. 3, lines 63-65)

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the program selector of Henriksson et al. '586 so that program selector defines an operation to be performed on the data portion by the signal handler, as taught by Williams et al. '586 because it enables to select and execute the desired operation on-the-fly so that no need of data buffering. The motivation for doing so would have been to optimize packet processing. Further more, at the time of the invention was made, to make use of the general purpose packet processing method/processor of Henriksson et al. '586 in an automotive industry such as a controller area network (CAN), as taught by Spaur et al. '074 because it enables to efficiently process received/transmit data. The motivation for doing so would have been to take advantage of on-the-fly packet reception processing by avoiding buffering an incoming packet which creates delay (Henriksson et al. '586, col. 2, lines 1-5).

As to **claim 2**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, wherein the operation to be performed on the data portion can be the creation of a second information unit; or merging the data portion, or part of the data portion, with another data portion of a second information unit; or saving the data portion, or part of the data portion (i.e.-the selected instructions are used to process the second header information, col. 4, lines 42-44).

As to **claim 3**, Henriksson et al. '586 teaches an information controller as claimed in claim 2, further comprising a frame transmitter for prioritizing multiple second information units for transmission in accordance with a communication protocol (i.e.-communication channels, col. 10, line 11).

As to **claim 4**, Henriksson et al. '586 teaches an information controller as claimed in claim 3, wherein the second information units include a second identifier (Note: it's intrinsic to include header information in the second data packet).

As to **claim 5**, Henriksson et al. '586 teaches an information controller as claimed in claim 3, further comprising a

transmission memory for storing multiple second information units (i.e.-payload memory 16, col. 8, lines 20).

As to **claim 7**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, wherein the signal handler further comprises memory for storing said data portion and a predetermined sequence of operations (col. 8, lines 18-20).

As to **claim 8**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, wherein the identifier look-up element is programmable to allow the predetermined identifier and/or the associated program selector to be changed (col. 6, lines 38-40).

As to **claim 9**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, further comprising a central processor unit interface to allow direct communication between said information controller with a central processing unit of the communication system (col. 8, lines 49-51).

As to **claim 10**, Henriksson et al. '586 innately teaches an information controller as claimed in claim 9, wherein said

central processing unit can access any memory of the information controller (col. 6, lines 1-8).

Referring to **claim 12**, Henriksson et al. '586 teaches, as claimed, a method for using an information controller for a communication system (i.e.-a method for using a protocol processor for processing first head information of a reception packet, col. 4, lines 9-11) having at least one communication bus and having an information unit with an identifier portion and a data portion corresponding to said identifier portion (i.e.-reception packet with header information and payload data, col. 3, lines 17-18), said method comprising the steps of: receiving the identifier portion at an identifier look-up element (i.e.-extracted header information is received by a compare unit, col. 4, lines 29-31); said identifier look-up element further comprises a look-up table (i.e.-look-up table 54, see fig. 5) for storing a list of identifiers (Note: the look-up table stores addresses as a key to provide the corresponding instruction, col. 7, lines 32-33); searching the look-up table in order to find a predetermined identifier and a predetermined program selector corresponding to said identifier portion (Note: the comparing unit searches and matches an address to a value in a look-up table provides instructions for

further processing, col. 3, lines 50-57); and sending said predetermined program selector to a signal handler upon determination that the identifier portion corresponds to said predetermined identifier associated with the predetermined program selector (Note: based on the comparing unit result an instruction is selected from the first look-up table, col. 4, lines 36-44).

However, Henriksson et al. '586 does not explicitly teach where the information controller being an automotive information controller for an automotive communication system; and the step of performing an operation on the data portion based upon the program selector.

On the other hand, Williams et al. '993 discloses a method of outputting or selecting an operation code based upon header information where the operation code indicates methods of modifying the data frame (col. 3, lines 11-19). Further more, Spaur et al. '074 discloses a controller area network (CAN) which operatively connected to plurality of devices that transmit, receive or both transmit and receive desired data (col. 3, lines 63-65)

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the program selector of Henriksson et al. '586 in order to perform an

operation on the data portion based upon the program selector, as taught by Williams et al. '586 because it enables to select and execute the desired operation on-the-fly so that no need of data buffering. The motivation for doing so would have been to optimize packet processing. Further more, at the time of the invention was made, to make use of the general purpose packet processing method/processor of Henriksson et al. '586 in an automotive industry such as a controller area network (CAN), as taught by Spaur et al. '074 because it enables to efficiently process received/transmit data. The motivation for doing so would have been to take advantage of on-the-fly packet reception processing by avoiding buffering an incoming packet which creates delay (Henriksson et al. '586, col. 2, lines 1-5).

Response to Arguments

Applicant's arguments filed on 09/05/08 have been considered but some of the arguments are moot in view of the new ground(s) of rejection and replies for some of the arguments are discussed as shown below.

Regarding claims 1 and 12, Applicants argued that "Henriksson et al. in combination with Williams et al. fail to teach...a look-up table for storing a list of identifiers,..."

(Page 6, 3rd paragraph, lines 2-4).

The Examiner disagrees with the above statement. Henriksson et al. '586 discloses a look-up table which stores addresses as a key to provide the corresponding instruction (col. 7, lines 32-33).

Applicants argued that there is no sufficient reason provided in the Office Action to combine the cited references (page 8, 2nd paragraph, lines 1-5). Further more, Applicants argued that **"There is no teaching in the cited prior art suggesting the modification..."** (Page 8, 2nd paragraph, lines 5-6)

The Examiner disagrees with the above statement and provides a reason in order to combine the references would be, because it enables to select and execute the desired operation on-the-fly so that no need of data buffering. The motivation for doing so would have been to optimize packet processing.

Regarding the alleged lack of suggestions in the cited prior arts for the modification, the test for obviousness is not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F. 2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this regard, a conclusion of obviousness may be based on common knowledge and

common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F .2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2184

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIAS MAMO whose telephone number is (571) 270-1726 and fax number (571) 270-2726. The examiner can normally be reached on Monday thru Thursday from 9 AM to 5 PM EST. The examiner can also be reached on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai, can be reached on (571) 272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
/E. M./

Examiner, Art Unit 2184

/Henry W.H. Tsai/

Supervisory Patent Examiner, Art Unit 2184